UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,242	09/26/2000	Mark M. Ishikawa		4706

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EXAMINER
LANIER, BENJAMIN E

ART UNIT	PAPER NUMBER
2132	

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _23 July 2004_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-82_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-82_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _23 July 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment of claims 1, 2, 4, 12, and addition of claims 13-82 have been
fully considered and is entered.

Response to Arguments

2.   Applicant's arguments filed 23 July 2004 have been fully considered but they are not
persuasive. Applicant's argument that the Examiner correlates the CRC and file size of Jones to
the key template of the present invention is not persuasive because as disclosed in the previous
Office Action, Jones discloses that file selected is fingerprinted using a preselected technique
that produces a fingerprint unique to the content of the document (Page 11, line 35 – Page 12,
line 7). This fingerprinting technique or algorithm would meet the limitation of the key template.
In further regard to claim 12, this algorithm being used to create a fingerprint would meet the
limitation of creating a fingerprint for the source file by recording portions of the source file that
correspond to each of the elements in the template.

3.   Applicant's argument that the Jones reference does not disclose branding the source file,
wherein the branding is associated with indicia of ownership is not persuasive because Jones
discloses that the owner of the file must identify himself before the file is fingerprinted. The
central computer then keeps a record of the author along with the fingerprint and date and time
stamp of the file. In this way, the author of the file can be verified (Page 3, lines 9-13). This
would meet the limitation of branding the source file, wherein the branding is associated with
indicia of ownership.

4.   In response to applicant's arguments against the references individually, one cannot show

nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re*

Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-6, 12, 13, 14, 17, 19, 37-39, 52, 57-62, 81 are rejected under 35 U.S.C. 102(b)

as being anticipated by Jones, WO 95/15522. Referring to claims 1, 3-6, 12, 17, 37, 52, 57-62,

81, Jones discloses a data verification system wherein a user can have a file, they created,

fingerprinted at a central computer (Page 2, lines 19-27), which meets the limitation of receiving

a source file from data owners and creating a fingerprint for the source file by recording portions

of the source file that correspond to each of the elements of the template. With regards to the

limitations involving the template and the key in the source file, Jones discloses that file selected

is fingerprinted using a preselected technique that produces a fingerprint unique to the content of

the document. The fingerprint includes a cyclic redundancy check value for the file along with

the file size (Page 11, line 35 – Page 12, line 7). Once generated the fingerprint and file are

stored in a database at the central computer that corresponds to the owner (Page 3, lines 9-17),

which meets the limitation of storing the source file and fingerprint in a database. The fingerprint

can then be compared to the fingerprint of an unknown file in order to verify that the files are the

same (Page 2, lines 30-36), which meets the limitation of comparing unknown data files to the

fingerprint stored in the database to determine whether the unknown data files are copies of any

portion of the source file.

Referring to claims 2, 14, 38, 39, Jones discloses that the file can be time stamped (Page

3, lines 1-2), which meets the limitation of branding the source file.

7.   Claims 1, 2, 9-39, 41-75, 82 are rejected under 35 U.S.C. 102(b) as being anticipated by

Hull, U.S. Patent No. 5,465,353. Referring to claims 1, 9-13, 15-19, 24, 26, 27, 31-34, 37, 41, 42,

45, 47, 49, 50, 52, 54, 56-64, 66-69, 71-73, 75, 82, Hull discloses an image matching system

wherein a digital representation of a document is stored in a document database while the digital

representation is passed to a feature extraction that produces descriptor elements from the digital

representation (Col. 6, lines 59-63), which meets the limitation of receiving a source file from

data owners, creating a key template comprising a plurality of elements, wherein each element is

defined by an element size, a quantity, a start position and an initial position. Once the

descriptors are extracted from the digital representation of the document they are hashed (Col. 7,

lines 5-8) and stored in a database (Col. 10, lines 49-50), which meets the limitations of creating

a fingerprint file for the source file by recording portions of the source file that correspond to

each of the elements in the key template, storing the source file and fingerprint in a database. The

stored files are compared to a group of test images (Col. 16, lines 33-37) that are scanned and

hashed (Col. 16, line 40 – Col. 18, line 24), which meets the limitation of searching the network

for unknown files, downloading unknown files to a data management server, and recording

portions of the unknown files that correspond to each of the elements in the key template to

create a fingerprint for the unknown file. The files are then compared and an count is kept of all

the matching descriptors. After the matching has finished the image with the highest number of

matches is compared to the corresponding file in the database (Col. 18, line 64 – Col. 19, line 7),

which meets the limitation of comparing the fingerprint of the uknown file to the fingerprint of

the source file, assigning a probability matching level for the unknown file based upon the

comparison results of the comparison between the fingerprint of the unknown file and the

fingerprint of the source file.

Referring to claims 2, 14, 38, 39, Hull discloses that the files are tagged with identifiers

(Col. 1, lines 10-18), which meets the limitation of branding the source file, wherein the

branding is associated with indicia of ownership.

Referring to claims 20, 25, 30, 36, 43, 44, 46, 53, 55, 65, 70, 82, Hull discloses the

selection of descriptor rules in detail with respect the documents and how the elements are

chosen (Col. 9, line 47 – Col. 10, line 19), which meets the limitation of providing a start

position for the key and providing initial positions for different elements in the key, and using

the start position and the initial positions of the different elements in the key to locate a start

position and initial positions in corresponding elements in the target file.

Referring to claims 21-23, 29, 30, 35, 36, 48, 51, 74, Hull discloses that the images are

normalized before comparing (Col. 3, line 53 – Col. 4, line 11), which meets the limitation of

normalizing the source file before identifying the elements in the key, adjusting the rate of

sampling the elements in the target file to the rate of sampling the elements in the key in the

source file, normalizing the source file before identifying the elements in the key, and adjusting

the rate of sampling the elements in the target file to the rate of the sampling the elements in the

key in the source file.

Referring to claim 28-30, 56, 75, Hull discloses that the system can be implemented

without using hash functions (Col. 7, lines 66-67).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

9.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness
        or nonobviousness.

10.   Claims 7, 9-11, 40, 76-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hull, U.S. Patent No. 5,465,353, in view of Chow, U.S. Patent No. 6,292,092. Referring to

claims 7, 40, 76-80, Hull discloses a data verification system wherein a user can have a file, they

created, fingerprinted at a central computer (Page 2, lines 19-27), which meets the limitation of

receiving a source file from data owners and creating a fingerprint for the source file by

recording portions of the source file that correspond to each of the elements of the template.

With regards to the limitations involving the template and the key in the source file, Jones

discloses that file selected is fingerprinted using a preselected technique that produces a

fingerprint unique to the content of the document. The fingerprint includes a cyclic redundancy

check value for the file along with the file size (Page 11, line 35 – Page 12, line 7). Once

generated the fingerprint and file are stored in a database at the central computer that

corresponds to the owner (Page 3, lines 9-17), which meets the limitation of storing the source

file and fingerprint in a database. The fingerprint can then be compared to the fingerprint of an

unknown file in order to verify that the files are the same (Page 2, lines 30-36), which meets the

limitation of comparing unknown data files to the fingerprint stored in the database to determine

whether the unknown data files are copies of any portion of the source file. Hull does not

disclose encrypting the files in association with an authorized user. Chow discloses an image

identification system wherein authentication information is encrypted and affixed (embedded)

into the source image (Col. 3, lines 13-17). It would have been obvious to one of ordinary skill in

the art at the time the invention was made to encrypt the file information of Hull in order to

identify the owner and to protect the image from counterfeit as taught in Chow (Col. 1, lines 17-

32).

11.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hull, U.S. Patent

No. 5,465,353, in view of Chow, U.S. Patent No. 6,292,092. Referring to claim 8, Hull discloses

a data verification system wherein a user can have a file, they created, fingerprinted at a central

computer (Page 2, lines 19-27), which meets the limitation of receiving a source file from data

owners and creating a fingerprint for the source file by recording portions of the source file that

correspond to each of the elements of the template. With regards to the limitations involving the

template and the key in the source file, Jones discloses that file selected is fingerprinted using a

preselected technique that produces a fingerprint unique to the content of the document. The

fingerprint includes a cyclic redundancy check value for the file along with the file size (Page 11,

line 35 – Page 12, line 7). Once generated the fingerprint and file are stored in a database at the

central computer that corresponds to the owner (Page 3, lines 9-17), which meets the limitation

of storing the source file and fingerprint in a database. The fingerprint can then be compared to

the fingerprint of an unknown file in order to verify that the files are the same (Page 2, lines 30-

36), which meets the limitation of comparing unknown data files to the fingerprint stored in the

database to determine whether the unknown data files are copies of any portion of the source file.

Hull does not disclose that the fingerprint is created using the average color values for predefined

portions of the source file. Chow discloses an image identification system wherein to create the

image fingerprint, certain features of the image are extracted and weighted averages are

calculated. These features are only based on luminance (color values) components of the picture

(Col. 4, lines 22-44). It would have been obvious to one of ordinary skill in the art at the time the

invention was made for the fingerprint of the source file of Hull to be calculated using the

function of Chow because the weighing functions are highly non-linear and it is very difficult to

create an image which would have the same averages and yet the image contain a face or

signature of a specific person as taught in Chow (Col. 4, lines 37-40).

12.   Claims 7, 9-11, 40, 76-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Jones, WO 95/15522, in view of Chow, U.S. Patent No. 6,292,092. Referring to claims 7, 9-11,

40, 76-80, Jones discloses a data verification system wherein a user can have a file, they created,

fingerprinted at a central computer (Page 2, lines 19-27), which meets the limitation of receiving

a source file from data owners and creating a fingerprint for the source file by recording portions

of the source file that correspond to each of the elements of the template. With regards to the limitation involving the template, Jones discloses that file selected is fingerprinted using a preselected technique that produces a fingerprint unique to the content of the document. The fingerprint includes a cyclic redundancy check value for the file along with the file size (Page 11, line 35 – Page 12, line 7). Once generated the fingerprint and file are stored in a database at the central computer that corresponds to the owner (Page 3, lines 9-17), which meets the limitation of storing the source file and fingerprint in a database. The fingerprint can then be compared to the fingerprint of an unknown file in order to verify that the files are the same (Page 2, lines 30-36), which meets the limitation of comparing unknown data files to the fingerprint stored in the database to determine whether the unknown data files are copies of any portion of the source file. Jones discloses that the file can be time stamped (Page 3, lines 1-2), which meets the limitation of branding the source file. Jones does not disclose that the embedded authentication information can be encrypted and embedded into the source file. Chow discloses an image identification system wherein authentication information is encrypted and affixed (embedded) into the source image (Col. 3, lines 13-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to encrypt the authentication information of Jones in order to protect the data as taught in Chow (Col. 3, lines 18-20).

13.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, WO 95/15522, in view of Chow, U.S. Patent No. 6,292,092. Referring to claim 8, Jones discloses a data verification system wherein a user can have a file, they created, fingerprinted at a central computer (Page 2, lines 19-27), which meets the limitation of receiving a source file from data owners and creating a fingerprint for the source file by recording portions of the source file that

correspond to each of the elements of the template. With regards to the limitation involving the template, Jones discloses that file selected is fingerprinted using a preselected technique that produces a fingerprint unique to the content of the document. The fingerprint includes a cyclic redundancy check value for the file along with the file size (Page 11, line 35 – Page 12, line 7). Once generated the fingerprint and file are stored in a database at the central computer that corresponds to the owner (Page 3, lines 9-17), which meets the limitation of storing the source file and fingerprint in a database. The fingerprint can then be compared to the fingerprint of an unknown file in order to verify that the files are the same (Page 2, lines 30-36), which meets the limitation of comparing unknown data files to the fingerprint stored in the database to determine whether the unknown data files are copies of any portion of the source file. Jones does not disclose that the fingerprint is created using the average color values for predefined portions of the source file. Chow discloses an image identification system wherein to create the image fingerprint, certain features of the image are extracted and weighted averages are calculated. These features are only based on luminance (color values) components of the picture (Col. 4, lines 22-44). It would have been obvious to one of ordinary skill in the art at the time the invention was made for the source file of Jones to be an image and the fingerprint calculated using the function of Chow in because the weighing functions are highly non-linear and it is very difficult to create an image which would have the same averages and yet the image contain a face or signature of a specific person as taught in Chow (Col. 4, lines 37-40).

14.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this
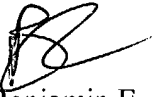
final action.

Conclusion

15.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Benjamin E Lanier whose telephone number is 703-305-7684

until 10/21 and 571-272-3805 afterwards. The examiner can normally be reached on M-Th0
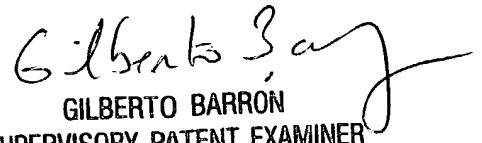
7:30am-5:00pm, F 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Gilberto Barron can be reached on (703)305-1830. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Benjamin E. Lanier

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